WHAT IS CLAIMED IS:

1. A method of depositing a Cu film for a semiconductor device comprising: carrying out intermediate steps before and after a plurality of wafer processes with a load lock of a Cu film deposition equipment;

aligning a wafer in a desired position with an aligner of said equipment;

removing residue produced on a surface of the wafer such as a gas with at least one of a de-gas chamber or a de-gas and in-situ annealing chamber of said equipment;

positioning the wafer in and out of chambers for said wafer processes with a feeding chamber having a robot;

cleaning an inside and an outside of a pattern using plasma on the wafer in a pre-cleaning chamber;

depositing a barrier metal on the pre-cleaned wafer in a barrier metal deposition chamber;

preparing said barrier metal prior to depositing a Cu thin film thereon with a first preparation process, wherein said preparation of said barrier metal includes either an adhesion glue layer (AGL) flash Cu deposition chamber depositing flash Cu on the barrier metal to enhance adhesion of the Cu thin film before depositing the Cu thin film or a CE treatment chamber processing an equal Chemical Enhancer (CE) adsorption before depositing the Cu thin film on the barrier metal;

preparing said wafer after said first preparation process with a second preparation process, said second preparation process including either a CECVD deposition chamber equally processing CE (Chemical Enhancer) and depositing a

CVD Cu thin film on the wafer where flash Cu is deposited or a CVD Cu deposition chamber depositing the Cu thin film on an entire surface of the wafer treated with CE; and

treating said wafer in a plasma treatment chamber, said treatment including carrying out a plasma treatment on the wafer to form an equal super-filling and another plasma treatment to remove iodine (I) produced on the surface of Cu thin film.